What Is Claimed Is:

1.   A method of evaluating a reservoir, comprising:

providing a three dimensional reservoir framework having a plurality of cells;

assigning one or more constant reservoir property values to some or all of the cells to provide a first three dimensional reservoir model;

updating the first three dimensional reservoir model by populating some or all of the cells with one or more variable reservoir property values to provide a second three dimensional reservoir model; and

updating the second three dimensional reservoir model by populating some or all of the cells with one or more reservoir property values derived from seismic data to provide a third three dimensional reservoir model.

2.   The method of claim 1, further comprising performing a flow simulation using at least one of the first, second or third three dimensional reservoir models.

3.   The method of claim 1, wherein providing the three dimensional reservoir framework comprises building the three dimensional reservoir framework.

4.   The method of claim 1, wherein the constant reservoir property values include a plurality of constant rock-type fraction values.

5.   The method of claim 1, wherein the variable reservoir property values include a plurality of constant porosity values.

6.   The method of claim 1, wherein the variable reservoir property values include a plurality of constant permeability values.

7.   The method of claim 1, wherein the variable reservoir property values include a plurality of variable rock-type fraction values.

8.   The method of claim 1, wherein the variable reservoir property values include a plurality of variable porosity values.

9.   The method of claim 1, wherein the variable reservoir property values include a plurality of variable permeability values.

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10.   The method of claim 1, wherein the reservoir property values derived from the seismic data comprises a plurality of rock-type fraction values derived from seismic data.

11.   The method of claim 1, wherein updating the second three dimensional reservoir model comprises populating some or all of the cells with variable porosity values.

12.   The method of claim 1, wherein updating the second three dimensional reservoir model comprises populating some or all of the cells with variable permeability values.

13.   The method of claim 1, wherein each cell has a pre-selected scale.

14.   The method of claim 1, wherein providing the three dimensional reservoir framework comprises providing the three dimensional reservoir framework at a flow simulation scale.

15.   The method of claim 1, wherein providing the three dimensional reservoir framework comprises defining a top and bottom surface of the reservoir framework.

16.   The method of claim 1, wherein providing the three dimensional reservoir framework comprises dividing the three dimensional reservoir framework into one or more stratigraphic sequences.

17.   The method of claim 1, wherein providing the three dimensional reservoir framework comprises dividing the three dimensional reservoir framework into one or more stratigraphic sequences; and dividing each stratigraphic sequence into one or more layers.

18.   The method of claim 1, wherein the constant reservoir property values are average values.

19.   The method of claim 1, further comprising calculating a net present value for the reservoir based on the first three dimensional reservoir model.

20. The method of claim 1, further comprising:

calculating a net present value for the reservoir based on the first three dimensional reservoir model;

calculating a net present value for the reservoir based on the second three dimensional reservoir model; and

comparing the net present value for the reservoir based on the second three dimensional reservoir model with the net present value for the reservoir based on the first three dimensional reservoir model.

21. The method of claim 1, further comprising determining whether at least one of the first, second or third three dimensional reservoir model needs to be updated.

22. The method of claim 1, wherein the variable reservoir property values are populated using geostatistics.

23. The method of claim 1, further comprising updating the third three dimensional reservoir model by populating some or all of the cells in the three dimensional reservoir framework with a plurality of rock-type fraction values derived from production data.

24. The method of claim 1, further comprising retrieving data at one or more scales, and deriving one or more reservoir property values from such data.

25. The method of claim 1, further comprising retrieving at least one of log data, core data, well test data and seismic data at one or more scales, and deriving one or more reservoir property values from such data.

26. A method of evaluating a reservoir, comprising:

providing a three dimensional reservoir framework at a flow simulation scale, wherein the three dimensional reservoir framework includes a plurality of cells;

assigning one or more constant reservoir property values to some or all of the cells to provide a three dimensional reservoir model;

performing a flow simulation on the three dimensional reservoir model; and

performing an assessment of the reservoir based on the three dimensional reservoir model.

27.   The method of claim 26, wherein performing the assessment comprises calculating a net present value for the reservoir.

28.   The method of claim 26, wherein the constant property values include a plurality of constant rock-type fraction values.

29.   The method of claim 26, wherein the constant property values include a plurality of constant porosity values.

30.   The method of claim 26, wherein the constant property values include a plurality of constant permeability values.

31.   The method of claim 26, further comprising:

        determining whether the three dimensional reservoir model needs to be updated; and

        populating some or all of the cells with one or more variable porosity and permeability values if the three dimensional reservoir model needs to be updated.

32.   The method of claim 26, further comprising:

        determining whether the three dimensional reservoir model needs to be updated; and

        populating some or all of the cells with one or more variable rock-type fraction values if the three dimensional reservoir model needs to be updated.

33.   The method of claim 26, further comprising:

        determining whether the three dimensional reservoir model needs to be updated; and

        populating some or all of the cells with one or more rock-type fraction values derived from seismic data if the three dimensional reservoir model needs to be updated.

34.   The method of claim 26, further comprising:

determining whether the three dimensional reservoir model needs to be updated; and

populating some or all of the cells with one or more rock-type fraction values derived from production data if the three dimensional reservoir model needs to be updated.

35.   A method of evaluating a reservoir, comprising:

providing a three dimensional reservoir framework having a plurality of cells;

assigning one or more constant reservoir property values to some or all of the cells to provide a first three dimensional reservoir model;

updating the first three dimensional reservoir model by populating some or all of the cells with one or more variable reservoir property values to provide a second three dimensional reservoir model; and

comparing a net present value for the reservoir based on the first three dimensional reservoir model with a net present value for the reservoir based on the second three dimensional reservoir model.

36.   The method of claim 35, wherein the constant reservoir property values comprise a plurality of constant rock-type fraction, porosity and permeability values.

37.   The method of claim 35, wherein providing the three dimensional reservoir framework comprises providing the three dimensional reservoir framework at a flow simulation scale.

38.   The method of claim 35, wherein updating the first three dimensional reservoir model comprises populating some or all of the cells with one or more variable porosity and permeability values.

39.   A method of evaluating a reservoir, comprising:

providing a three dimensional reservoir framework, wherein the reservoir framework includes a plurality of cells;

assigning one or more constant reservoir property values to some or all of the cells to provide a first three dimensional reservoir model;

updating the first three dimensional reservoir model by populating some or all of the cells with one or more reservoir property values derived from seismic data to provide a second three dimensional reservoir model; and

comparing a net present value for the reservoir based on the first three dimensional reservoir model with a net present value for the reservoir based on the second three dimensional reservoir model.

40. The method of claim 39, wherein the constant reservoir property values comprise a plurality of constant rock-type fraction, porosity and permeability values.

41. The method of claim 39, wherein providing the three dimensional reservoir framework comprises providing the three dimensional reservoir framework at a flow simulation scale.

42. The method of claim 39, wherein updating the first three dimensional reservoir model comprises populating some or all of the cells with one or more rock-type fraction values derived from seismic data.

43. The method of claim 4, wherein the rock-type fraction values are net-to-gross values.

44. The method of claim 7, wherein the rock-type fraction values are net-to-gross values.

45. A method of evaluating a reservoir, comprising:

providing a three dimensional reservoir framework at a flow simulation scale, wherein the three dimensional reservoir framework includes a plurality of cells;

assigning one or more constant reservoir property values to some or all of the cells to provide a three dimensional reservoir model;

performing a flow simulation on the three dimensional reservoir model; and

performing an economic assessment of the reservoir based on the three dimensional reservoir model.

46. The method of claim 45, wherein performing the economic assessment comprises calculating for the reservoir at least one of net present value, discounted

cash flow rate, maximum cash impairment, return on capital, and any combination thereof.